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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT PAPER NUMBER

3745

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/539,930

Applicant(s)

TIEMANN, PETER

Examiner

Christopher Verdier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6-17-05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Receipt and entry of Applicant's Preliminary Amendment dated June 17, 2005 is acknowledged.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
It does not refer to the application PCT/EP03/13711 upon which priority is based.

Drawings

The drawings are objected to because in figure 1, "13" should point to the guide blade row and "14" should point to the moving blade row. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not

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accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: “33”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because it contains the phrases “The invention relates to” (line 1) and “The aim of the invention” (line 6) which are implied and should be deleted, because the legal terms “Said” (line 1) and “said” (line 5, both occurrences) should be deleted, and because in line 5, “heard” should be changed to -- head --. Correction is required. See MPEP § 608.01(b).

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The disclosure is objected to because of the following informalities: Appropriate correction is required.

In paragraph 12, line 3, "as abutment" is incomplete and unclear.

In paragraph 18, line 4, "as abutment" is incomplete and unclear.

In paragraph 22, line 1, "a" should be deleted, and "drawing" should be changed to -- drawings --.

In paragraph 31, lines 2 and 3, "25" should be changed to -- 35 --.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10, line 6 recites "the inner casing". There is insufficient antecedent basis for this limitation in the claim. Claim 12, line 3 recites "the clearance profile of the guide blade". There is insufficient antecedent basis for this limitation in the claim. Claims 12, lines 3-4 recite "the tie rod". There is insufficient antecedent basis for this limitation in the claim. Claim 14, line 2 recites "the tie rod". There is insufficient antecedent basis for this limitation in the claim. Claim 18, line 4 recites "the inner casing". There is insufficient antecedent basis for this limitation in the claim. Claim 18, line 9 recites "the clamping device". There is insufficient antecedent basis for this limitation in the claim. In claim 18, lines 9-10, "releasing the clamping device ... and displaced into a parking position" is incomplete and unclear. In claim 18, line 10,

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“fixed there again” is indefinite because it is unclear which term(s) this refers to. Claim 18, line 11 recites “the other clamping device”. There is insufficient antecedent basis for this limitation in the claim. Claim 18, line 11 recites “the inner fixing ring”. It is unclear if this is meant to refer to the fixing ring recited in claim 18, lines 5-6, or another ring.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-17, as far as they are definite and understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Morley 2,488,875. Note the turbine, comprising a rotor 14/16 extending in the axial direction, an accessible combustion chamber 12 which communicates with an annular hot-gas duct 17, a multiplicity of guide blades 20 arranged in such a way as to form a guide-blade row, each guide blade having a guide-blade root 22 fixed to an inner casing 30 and a guide-blade tip 21 which is opposite the guide-blade root, faces the rotor and is fixed to a fixing ring (the right hand side of 26), enclosing the rotor, of the turbine, wherein the guide-blade tip of each guide blade can be secured by a manually releasable clamping device (the left hand side of 26 and/or the unnumbered nut connected thereto) accessible from the combustion chamber. The clamping device is secured to the fixing ring, and fastens the guide-blade tip in an operating position by means of a tie rod (the unnumbered bolt

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connected to 26) running in the axial direction. To remove the guide blade through the combustion chamber, part of the clamping device that faces the combustion chamber can be removed from the clearance profile of the guide blade after the release of the tie rod. To remove the guide blade the clamping device is fixed in a parking position exposing the guide-blade tip. The clamping device comprises two unnumbered radially extending retaining stops that can be fastened to the guide-blade tip by the tie rod. The guide blade is arranged in a first guide-blade row as viewed in the direction of flow of a working medium. A guide ring 39 arranged downstream in the direction of flow of a working medium is manually accessible after removal of the clamping device fixed to the inner casing. Concerning the language in claim 10, lines 9-10 that the guide-blade root of each guide blade can be secured by a manually releasable clamping device accessible from the combustion chamber, the language in claim 16 that the clamping device can be removed from the inner casing after removal of the guide blade, and the language in claim 17 that the guide ring is manually accessible after removal of the clamping device fixed to the inner casing, the term “can be” is not a positive recitation, but rather a recitation of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claims 10-12 and 15-17, as far as they are definite and understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Hirst 5,073,084. Note the turbine, comprising a rotor 28 extending in the axial direction, an accessible combustion chamber 14 which communicates with

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an annular hot-gas duct 16, a multiplicity of guide blades 20 arranged in such a way as to form a guide-blade row, each guide blade having an unnumbered guide-blade root fixed to an inner casing 22 at its radially outer end, and a guide-blade tip 46 which is opposite the guide-blade root, faces the rotor and is fixed to a fixing ring 32, enclosing the rotor, of the turbine, wherein the guide-blade tip of each guide blade can be secured by a manually releasable clamping device 44 accessible from the combustion chamber. The clamping device is secured to the fixing ring, and fastens the guide-blade tip in an operating position by means of a tie rod 44 running in the axial direction. To remove the guide blade through the combustion chamber, part of the clamping device that faces the combustion chamber can be removed from the clearance profile of the guide blade after the release of the tie rod. The guide blade is arranged in a first guide-blade row as viewed in the direction of flow of a working medium. A guide ring 26/18 arranged downstream in the direction of flow of a working medium is manually accessible after removal of the clamping device fixed to the inner casing. Concerning the language in claim 10, lines 9-10 that the guide-blade root of each guide blade can be secured by a manually releasable clamping device accessible from the combustion chamber, the language in claim 16 that the clamping device can be removed from the inner casing after removal of the guide blade, and the language in claim 17 that the guide ring is manually accessible after removal of the clamping device fixed to the inner casing, the term “can be” is not a positive recitation, but rather a recitation of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-12 and 14-17, as far as they are definite and understood, are also rejected under 35 U.S.C. 103(a) as being unpatentable over Heumann 5,848,874 in view of Japanese Patent 52-68,610. Heumann discloses a turbine substantially as claimed, comprising an unnumbered rotor inward of 32 extending in the axial direction, an accessible combustion chamber 10 which communicates with an annular hot-gas duct near 14, a multiplicity of guide blades 41 arranged in such a way as to form a guide-blade row, each guide blade having a guide-blade root 42 fixed to an inner casing 16 at its radially outer end, and a guide-blade tip near 40 which is opposite the guide-blade root, faces the rotor and is supported by a fixing ring 46, enclosing the rotor, of the turbine, wherein the guide-blade tip of each guide blade can be secured by a manually releasable clamping device 26/50 accessible from the combustion chamber. The clamping device is secured to the inner casing, and fastens the guide-blade root in an operating position by means of a tie rod 48 running in the axial direction. To remove the guide blade through the combustion chamber, part of the clamping device that faces the combustion chamber can be removed from the clearance profile of the guide blade after the release of the tie rod. The guide blade is arranged in a first guide-blade row as viewed in the

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direction of flow of a working medium. A guide ring (32 or the unnumbered ring that is radially outward of 34) arranged downstream in the direction of flow of a working medium is manually accessible after removal of the clamping device fixed to the inner casing. Concerning the language in claim 16 that the clamping device can be removed from the inner casing after removal of the guide blade, the term “can be” is not a positive recitation, but rather a recitation of intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

However, Heumann does not disclose that the guide blade tip of each guide blade is fixed to the fixing ring 46.

Japanese Patent 52-68,610 shows a turbine vane mounting arrangement whereby guide blades 1 are fixed to a fixing ring 6 via bolts 10, for the purpose of fixedly supporting the guide blades.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the turbine of Heumann such that guide blade tip of each guide blade is fixed to the fixing ring, as taught by Japanese Patent 52-68,610, for the purpose of fixedly supporting the guide blades.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Koziura and Nichols are cited to show turbine vane mounting arrangements located adjacent a combustor. These references could also have been applied as they anticipate at least claim 10 under 35 U.S.C. 102, but are not applied at this time in order to avoid multiple rejections.

Constant is cited to show a turbine vane mounting arrangement adjacent a combustor.

Hultgren is cited to show individually mounted turbine vanes.

United Kingdom Patent 368,601 is cited as the US equivalent to German Patent 606,029, cited in the International Reports.

Examiner's Comment

No indication of allowability with regard to claim 18 may be made at this time due to the indefinite nature of the claim.

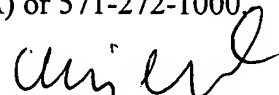
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C.V.
September 6, 2006


Christopher Verdier
Primary Examiner
Art Unit 3745